هيئة التقييس لدول مجلس التعاون لدول الخليج العربية
STANDARDIZATION ORGANIZATION FOR G.C.C (GSO)

First draft Standard

GSO /2011

Standard For Fat Spreads And Blended Spreads (E)

إعداد

Technical committee for food and agricultural products standards.

هذه الوثيقة مشروع لمواصفة قياسية خليجية تم توزيعها لإبداء الرأي والملاحظات بشأنها، لذلك فإنها عرضة للتغيير والتبديل، ولا يجوز الرجوع إليها كمواصفة قياسية خليجية إلا بعد اعتمادها من مجلس إدارة الهيئة الخليجية.

تقديـــم

هيئـة التقيـيس لـدول مجلـس التعـاون لـدول الخلـيج العربيـة هيئـة إقليميـة تضـم فـي عضـويتها الأجهـزة الوطنيـة للمواصفات والمقاييس في دول الخليج العربية ، ومن مهام الهيئة إعداد المواصفات القياسية الخليجية بواسطة لجان فنية متخصصة .

وقد قامت هيئة التقييس لدول مجلس التعاون لدول الخليج العربية ضمن برنامج عمل اللجنة الفنية رقم " TC5 " اللجنة الفنية الخليجية لقطاع المواصفات الغذائية و الزراعية " بإعداد هذه المواصفة القياسية الخليجية " مواصفة الدهون ومخاليط الدهون القابلة للدهن " من قبل (دولة الكويت) ، وقد تم استعراض المواصفات القياسية العربية والاجنبية والدولية والمؤلفات المرجعية ذات الصلة.

وقد اعتمدت هذه المواصفة كمواصفة (لائحة فنية) خليجية في اجتماع مجلس إدارة الهيئة رقم ( )، الذي عقد بتاريخ / / هـ ، الموافق / / .

Foreword

GCC Standardization Organization (GSO) is a regional Organization which consists of the National Standards Bodies of GCC member States. One of GSO main functions is to issue Gulf Standards /Technical regulations through specialized technical committees (TCs).

GSO through the technical program of committee TC No. 5 Technical Committee for Sector of Food and Agriculture Products has prepared this gulf standard " Standard For Fat Spreads And Blended Spreads.

". The Draft Standard has been prepared by (*State of Kuwait*).

The draft Standard has been prepared based on relevant ADMO,International and National foreign Standards and references.

This standard has been approved as a Gulf (Standard / Technical Regulation) by GSO Board of Directors in its meeting No.( ),held on / / H , / /

1. SCOPE

This Standard applies to fat products, containing not less than 10% and not more than 90% fat, intended primarily for use as spreads. However, this Standard does not apply to fat spreads derived exclusively from milk and/or milk products to which only other substances necessary for their manufacture have been added. It only includes margarine and products used for similar purposes and excludes products with a fat content of less than 2/3 of the dry matter (excluding salt). Butter and dairy spreads are not covered by this Standard>

2- COMPLEMENTARY Referances

2.1 GSO 9 " Labeling of prepackaged foods ".

2.2 GSO 15 " Methods of sampling for edible oils and fats ".

2.3 GSO 17 " Methods of test for permitted additives , edible oils and fats – part 1".

2.4 GSO 19 " permitted food additives in edible oils and fats "

2.5 GSO 20 " Methods for the determination of contaminating metallic elements in foodstuffs ".

2.6 GSO 22 " Methods of test for colouring matter used in foodstuffs".

2.7 GSO " General Standard for food Aditives in food stuffs " to be approved by the organization.

2.8 GSO 993 " Animal Slaughtering requirements according to the lslamic law " .

2. 9 GSO 382 GSO 383 " Maximum limits for pesticide residues in agricultural food products – part 1 and part 2.

2.10 GSO " General standard for Contaminants in food and feed " .

2.11 GSO 1016 " Microbiological limits in food and food stuff " .

2.12 GSO 988 " Limits of radioactivity levels permitted in foodstuff – part 1 ".

2.13 GSO 21 " Hygnic regulation for food plants and their personal ".

2.14 GSO 1694 " Greneral Principles of food Hygiene.

3. DESCRIPTION

3.1 Fat Spreads and Blended Spreads

The products covered by this Standard are foods that are plastic or fluid emulsions, principally of water and edible fats and oils**.**

3.2 Edible Fats and Oils

"Edible fats and oils" means foodstuffs composed of glycerides of fatty acids. They are of vegetable or animal (including milk) or marine origin. They may contain small amounts of other lipids such as phosphatides, of unsaponifiable constituents and of free fatty acids naturally present in fat or oil. Fats of animal origin must, if originating from slaughtered animals, be obtained from animals in good health at the time of slaughter and fit for human consumption as determined by a competent authority recognised in national legislation. Fats and oils that have been subjected to processes of physical or chemical modification including fractionation, inter-esterification or hydrogenation are included.

4. ESSENTIAL COMPOSITION AND QUALITY FACTORS

4.1 Composition

4.1.1 Fat Spreads

4.1.1.1 For these products, any milk fat content must be no more than 3% of the total fat content

4.1.1.2 The fat content shall be as follows: (a) Margarine ≥ 80%

(b) Fat spreads < 80%

4.1.2 Blended Spreads

4.1.2.1 These are blended spreads in which milk fat is more than 3% of the total fat content. However a higher minimum percentage of milk fat may be specified in accordance with the requirements of the country of the retail sale.

4.1.2.2 The fat content shall be as follows:

(a) Blends ≥ 80 %
(b) Blended fat spread < 80 %

4.2 Permitted Ingredients

4.2.1 The following substances may be added:

Vitamins:	Vitamin A and its esters
	Vitamin D
	Vitamin E and its esters

Maximum and minimum levels for vitamins A, D and E should be laid down by national legislation in accordance with the needs of each individual country including, where appropriate, the prohibition of the use of particular vitamins.

Sodium Chloride Sugars (any carbohydrate sweetening matter) Suitable edible proteins

4.2.2 Use of other ingredients, including minerals, may be permitted in national legislation.

5. FOOD ADDITIVES

Without prejudice to what stated in Gulf standards mentioned in item 2.4 and item 2.7 The following shall applied.

5.1 Acidity Regulators

INS No.	Additive	Maximum Use Level
262(ii)	Sodium diacetate	1,000 mg/kg
334; 335(i), (ii); 336(i), (ii); 337	Tartrates	100 mg/kg (as tartaric acid)
338; 339(i), (ii), (iii); 340(i), (ii), (iii); 341(i), (ii), (iii); 342(i), (ii); 343(i), (ii), (iii); 450(i), (ii), (iii), (v), (vi); (vii), 451(i), (ii); 452(i), (ii), (iii), (iv), (v); 542	Phosphates	1.000 mg/kg (as phosphorus)

5.2 Antifoaming Agents

INS No.	Additive	Maximum Use Level
900a	Polydimethylsiloxane	10 mg/kg (frying purposes, only)

5.3 Antioxidants

INS No.	Additive	Maximum Use Level
304, 305	Ascorbyl esters	500 mg/kg (as ascorbyl stearate)
307a	Tocopherol, d-*alpha*-	500 mg/kg (Singly or in combination)
307b	Tocopherol concentrate, mixed	
307c	Tocopherol, dl-*alpha*	
310	Propyl gallate	200 mg/kg (fat or oil basis) singly or in combination.
319	Tertiary butylhydroquinone	
320	Butylated hydroxyanisole	
321	Butylated hydroxytoluene	
384	Isopropyl citrates	100 mg/kg

385, 386	EDTAs	100 mg/kg (as anhydrous calcium disodium EDTA)
388, 389	Thiodipropionates	100 mg/kg (as thiodipropionic acid)

5.4 Colours

INS No.	Additive	Maximum Use Level
100 (i)	Curcumin	10 mg/kg
101(i), (ii)	Riboflavins	300 mg/kg
120	Carmines	500 mg/kg
150b	Caramel II - caustic sulfite process	500 mg/kg
150c	Caramel III - ammonia process	500 mg/kg
150d	Caramel IV - sulfite ammonia process	500 mg/kg
160a(ii)	*beta*-Carotenes, (vegetable)	1000 mg/kg
160a(i)	*beta*-Carotenes (synthetic)	35 mg/kg singly or in combination
160a(iii)	*beta*-Carotenes (*Blakeslea trispora*)	
160e	*beta*-apo-8'-Carotenal	
160f	*beta*-apo-8'-Carotenoic acid, methyl or ethyl ester	
160b(i)	Annatto extracts, bixin- based	100 mg/kg (as bixin)

5.5 Emulsifiers

INS No.	Additive	Maximum Use Level
432, 433, 434, 435, 436	Polysorbates	10,000 mg/kg (singly or in combination)
472e	Diacetyltartaric and fatty acid esters of glycerol	10,000 mg/kg
473	Sucrose esters of fatty acids	10,000 mg/kg
474	Sucroglycerides	10,000 mg/kg
475	Polyglycerol esters of fatty acids	5,000 mg/kg

476	Polyglycerol esters of interesterified ricinoleic acid	4,000 mg/kg
477	Propylene glycol esters of fatty acids	20,000 mg/kg
479	Thermally oxidized soya bean oil interacted with mono- and diglycerides of fatty acids) and diglycerides of fatty acids)	5,000 mg/kg (in fat emulsions for frying or baking purpose, only)
481(i), 482(i)	Stearoyl-2-lactylates	10,000 mg/kg (singly or in combination)
484	Stearyl citrate	100 mg/kg (fat or oil basis)
491, 492, 493, 494, 495	Sorbitan esters of fatty acids	10,000 mg/kg (singly or in combination)

5.6 Flavours

Natural flavouring substances and artificial flavouring substances.

5.7 Preservatives

INS No.	Additive	Maximum Use Level
200, 201, 202, 203	Sorbates	2,000 mg/kg (singly or in combination (as sorbic acid)
210, 211, 212, 213	Benzoates	1,000 mg/kg (singly or in combination (as benzoic acid)
If used in combination, the combined use shall not exceed 2000 mg/kg of which the benzoic acid portion shall not exceed 1000 mg/kg.		

5.8 Stabilizers and Thickeners

INS No.	Additive	Maximum Use Level
405	Propylene glycol alginate	3,000 mg/kg

6. CONTAMINANTS

6.1 Heavy metals

The products covered by the provisions of this standard shall comply with maximum limits being established by the GSO standard mentioned in item 2.10 but in the meantime the following limits will apply :

Heavy Metals	Maximum permissible concentration
Lead (pb)	0.1 mg/kg
Arsenic (As)	0.1 mg/kg

6.2 Pesticide residues

Pesticide residues content shall not exceed what is stated in the Gulf standards mentioned in item 2.9.

6.3 The limits of radioactivity levels shall not exceed what is stated in Gulf standard mentioned in item 2.12

7. HYGIENE

7.1 It is recommended that the products covered by the provisions of this standard be prepared and handled in accordance with the GSO standard mentioned in item 2.14 and other relevant hygienic practice standard.

7.2 Microbiological limits comply with criteris stated in the Gulf standards mentioned in (2.11).

8. LABELLING

Without prejudice to what as stated in the Gulf standards mentioned in (2.1) the following shall be declared on each package.

8.1 Name of the Food

The name of the food to be declared on the label shall be as specified in Sections 3.1.1 and 3.1.2.

8.1.1 In accordance with requirements acceptable in the country of retail sale, fat spreads defined in section 3.1.1.2 with a fat content of less than 80% may incorporate the term “margarine” in the name of the food, provided that the term is qualified to make clear the lower fat content. Fat spreads with a fat content of 39 to 41% may be designated as “Minarine” or “Halvarine”.

8.1.2 For item 3.1, the name of the product may incorporate the name of the fats and oils in a generic or specific manner.

8.2 Declaration of Fat Content

8.2.1 The product shall be labelled to indicate fat content in a manner found acceptable in the country of sale.

8.2.2 The milk fat content, when present shall be indicated in a manner that is clear and not misleading to the consumer.

8.3 Declaration of Salt Content

8.3.1 The product should be labelled to indicate salt content in a manner found acceptable in the country of retail sale.

8.4 Labelling of Non-Retail Containers

Information on the above labelling requirements shall be given either on the container or in accompanying documents, except that the name of the food, lot identification and the name and address of the manufacturer or packer shall appear on the container.
However, lot identification, and the name and address of the manufacturer or packer may be replaced by an identification mark, provided that such a mark is clearly identifiable with the accompanying documents.

9- SAMPLING

Sampling shall be according to GSO standard on item 2.2 .

10- METHODS OF ANALYSIS

Without violation of the GSO standard in item 2.5 , the following may be added.

10.1 Determination of lead
According to AOAC 994.02; or ISO 12193: 1994; or AOCS Ca 18c-91 (97).

10.2 Determination of arsenic
According to AOAC 952.13; AOAC 942.17; or AOAC 985.16.

10.3 Determination of fat content
According to ISO 17189 | IDF 194: 2003.

10.4 Determination of milk fat content (Butyric acid)
According to AOAC 990.27; or AOCS Ca 5c-87 (97).

10.5 Determination of salt content
According to IDF 12B: 1988, ISO CD 1738 or AOAC 960.29.

10.6 Determination of vitamin A content

According to AOAC 985.30; AOAC 992.04; or JAOAC 1980, 63, 4.

10.7 Determination of vitamin D content

According to AOAC 981.17.

10.8 Determination of vitamin E content

According to ISO 9936: 1997.

80% 8